

High Performance Object Storage for Veeam Backups

Scale your Veeam V10 instances with MinIO and deliver massive improvements to capacity and performance.

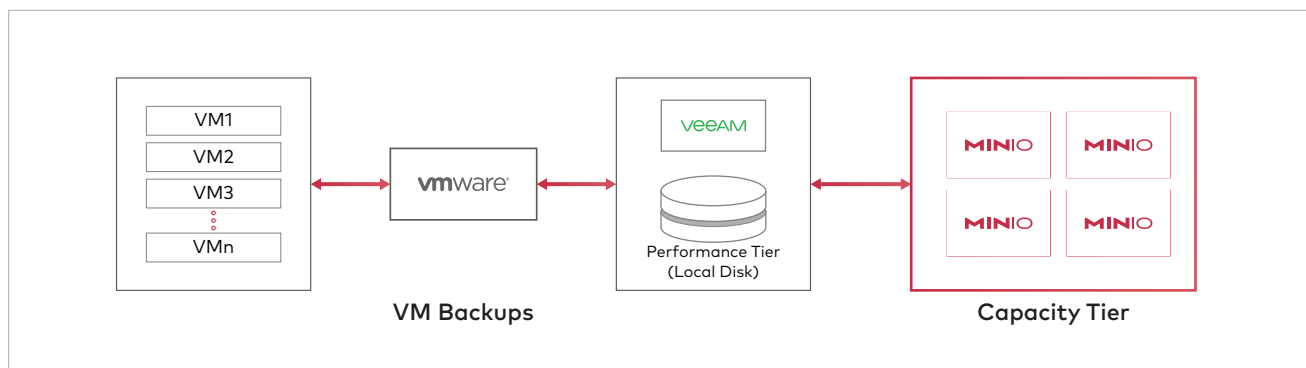


The data center backup and recovery market is both dynamic and highly competitive, valuing simplicity, diversity of backup types, speed and above all fidelity. The market has evolved and software-defined solutions have gained market share by offering superior economics and operational flexibility. According to Gartner, by 2022, 40% of organizations will replace the backup applications they deployed at the beginning of 2018.

Veeam is the leader in this market, offering software-defined simplicity and a diverse range of optimized backup solutions. MinIO and Veeam have partnered to add high performance object storage as an endpoint - disaggregating compute and storage in the backup context and delivering superior performance, scalability and economics in the process. Given that object storage can accept a wide range of data types, a single instance of MinIO can serve as a Veeam endpoint for anything from VMs, to Oracle, to SAP to Microsoft Office.

MinIO object storage offers the most scalable and high performance object storage solution in the market today with a host of features that make it the ideal option for Veeam customers.

- Backup and restore with the industry's fastest object store.
- Improve resilience with atomically written metadata.
- Software-defined solutions offer superior economic flexibility.
- S3-compatible object store is ideal backup for a wide range of applications.



Performance

Backups and restores need to go quickly, no matter the size. With the ability to read/write at speeds in excess of 160 GB/s in a single 32 node cluster, MinIO can backup and restore at speeds once considered impossible for object storage.

Cloud Native

Built from scratch over the last four years, MinIO offers the highest level of interoperability with modern, cloud-native technologies such as Kubernetes, Docker and other microservices. This cloud orientation, coupled with MinIO's software-defined approach and open source licensing provide enterprise-class certainty that is measured in decades.

Atomic Metadata

Because MinIO writes metadata atomically along with the object data, it does not require an external database (Cassandra in most cases) to house the metadata. MinIO delivers performance across Veeam's recommended range facilitating deletes and dedupe.

Software Defined, Hardware Agnostic + Open Source

Like Veeam, MinIO is software-defined and hardware agnostic. This approach delivers massive savings and flexibility to Veeam customers as they design systems to accommodate a range of different backup use cases. In addition, the core MinIO object storage suite is 100% open source under the Apache V2 license. This means that MinIO's customers are free from lock in, free to inspect, free to innovate, free to modify and free to redistribute.

Erasure Coding

MinIO protects data with per-object, inline erasure coding which is written in assembly code to deliver the highest performance possible.

MinIO's implementation ensures that objects can be read or new objects written even if up to half the drives are lost or unavailable - delivering resilience in a fraction of the disk space as traditional replication. MinIO's erasure code implementation delivers economic, performance and resilience benefits over both traditional approaches and other Veeam solutions.

Bitrot Protection

Silent data corruption or bitrot, is a serious problem faced by the corruption of disk drives without the user's knowledge. MinIO's optimized implementation of the HighwayHash algorithm ensures that Veeam will never read corrupted data - it captures and heals corrupted objects on the fly.

Encryption

It is one thing to encrypt data in flight, it is another to protect data at rest. MinIO supports multiple, sophisticated server-side encryption schemes to protect data - wherever it may be. Server side and client side encryption are supported using AES-256-GCM, ChaCha20-Poly1305 and AES-CBC. Encrypted objects are tamper-proofed with AEAD server side encryption. Given the exceptionally low overhead, auto-encryption can be turned on for every application and instance.

Continuous Replication & Lambda Compute

MinIO's continuous replication is designed for large scale, cross-data center deployments. By leveraging Lambda compute notifications and object metadata it can compute the delta efficiently and quickly. Lambda notifications ensure that changes are propagated immediately as opposed to traditional batch mode.

Scaling with Global Federation

MinIO allows disparate instances to be combined to form a unified global namespace. Any number

of MinIO servers can be combined into a Distributed Mode set and multiple Distributed Mode sets can be combined into a MinIO Server Federation. The result is a backup endpoint that can scale endlessly for large, geographically distributed enterprises.

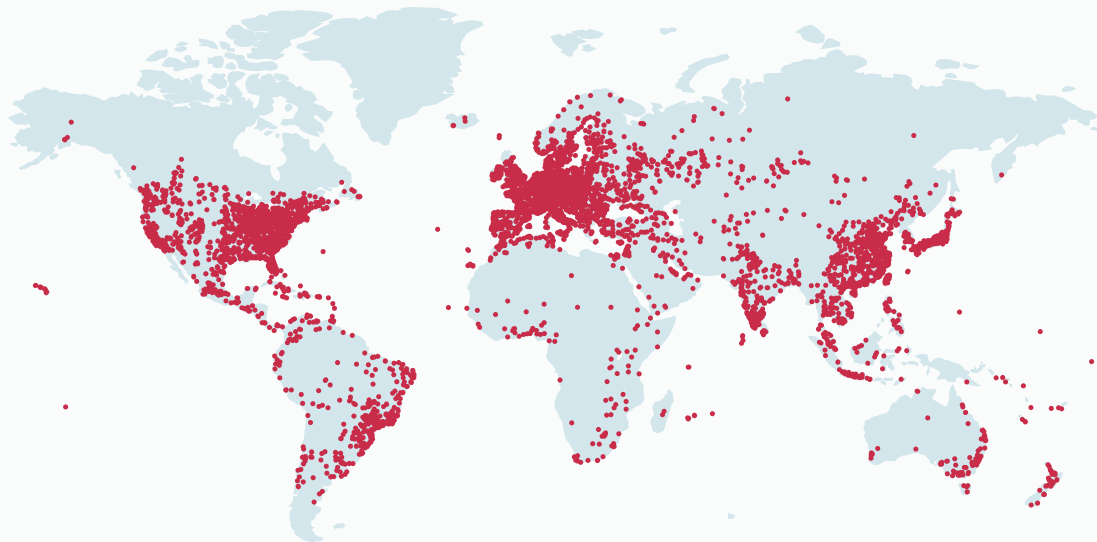
Simplicity

MinIO can be installed and configured within minutes simply by downloading a single binary and then executing. The amount of configuration options and variations is kept to a minimum which results in near-zero system administration tasks and fewer paths to failures. Upgrading MinIO is done with a single command which is non-disruptive and incurs zero downtime - lowering total cost of ownership.

MinIO and Veeam: Better Together

Deploying MinIO object storage in conjunction with Veeam offers multiple benefits. These include the benefits associated with software-defined solutions, the performance characteristics of fast backup and restore and finally the resilience and flexibility of an object store that writes metadata atomically.

World's Fastest Growing Object Storage System



21.5K+
GITHUB STARS

346.4M+
DOCKER PULLS

7484
SLACK MEMBERS

538
CONTRIBUTORS